

MECHANICAL INTEGRITY TESTS

COMPANY NAME North River Petroleum
 ADDRESS _____
 CITY AND STATE _____
 LEASE NAME _____ WELL NO. 1A
 LEGAL DESCRIPTION 1650 ft. from S line of
540 ft. from E line of NE 1/4 of 1 SECTION
 TOWNSHIP 21 N RANGE 7E
 SALT WATER DISPOSAL WELL V ENHANCED RECOVERY WELL _____
 MAXIMUM PRESSURE AUTHORIZED _____ psi INJECTION INTERVAL _____ ft
 NEW WELL _____ CONVERSION _____ EXISTING V PACKER DEPTH _____ ft
 DATE OF LAST INSPECTION None

I. No significant fluid movement into a USDW through channels adjacent to well bore:

Demonstration Adequate: (YES) NO
 Method Used: (CHECK ONE OR MORE)
☒ Cementing Records
☐ Tracer Survey (in conjunction with another method)
☐ Temperature Log
☐ Noise Log
☐ Other Acceptable Method (Specify)
 Date: 2/11/85
 Reviewer: Dana C.
File

II. No significant leak in casing, tubing or packer:

METHOD(S) USED:

(A) TUBING-PACKER PRESSURE TESTS

PROCEDURE: (1) Fill annulus with liquid and allow at least 2 hours for temperatures to stabilize (2) while injecting at maximum or average injection pressure, observe and record injection and annulus pressure, or liquid flow.

TEST WITNESSED BY: _____ (COMPANY REPRESENTATIVE) _____ (EPA FIELD INSPECTOR)

DATE: _____
 DATE RECORDED BY: _____
 TIME SINCE: INJECTION BEGAN _____ ANNULUS FILLED _____
 (hrs/days) (hrs/days)
 ACTUAL INJECTION PRESSURE _____ psi
 CASING-TUBING ANNULUS PRESSURE _____ psi
 WATER FLOWED FROM ANNULUS (YES/NO)
 FLOW: ESTIMATED VOLUME _____ Gals; TIME FOR FLOW TO STOP _____ Mins

RESULTS: (PASS/FAIL) - If fail, shut down and reschedule test after appropriate repairs have been completed.

(B) CASING-TUBING ANNULUS PRESSURE TEST

PROCEDURE: (1) Top off annulus with liquid, if more than 100 gallons are required, allow at least 2 hours for temperatures to stabilize, (2) pressure annulus to at least 200 psi, (3) observe and record injection tubing pressure and annulus pressure simultaneously for at least 30 minutes. (Note: This test may be run while well is shut-in or injecting. If injecting, must maintain a minimum of 100 psi difference between injection and annulus pressures throughout the tubing length).

TEST WITNESSED BY: James R. Rice Clarence Edmonson
 (COMPANY REPRESENTATIVE) (EPA FIELD INSPECTOR)

DATE: Oct. 2, 1985
 DATA RECORDED BY: Clarence Edmonson
 WELL: (INJECTING/SHUT-IN): HOW LONG SINCE SHUT-IN N/A
 (hrs/days)
 NATURE OF LIQUID: INJECTION LIQUID produced : ANNULUS LIQUID inhibited
saltwater saltwater

INJECTION: PRESSURE 5 psi: RATE 1,000 (BBls/D) (Durf injection or prior to shut-in) 0802
H

TUBING PRESSURE	ANNULUS PRESSURE	TIME
<u>5</u>	<u>220</u>	<u>1:23</u> at 0 MINUTES
<u>5</u>	<u>215</u>	<u>1:28</u> at 5 "
<u>5</u>	<u>212</u>	<u>1:33</u> at 10 "
<u>5</u>	<u>209</u>	<u>1:43</u> at 20 "
<u>5</u>	<u>208</u>	<u>1:53</u> at 30 "

RESULTS: (PASS/FAIL) - If results are not obvious, repeat above test. If annulus pressure fails to hold, Shut down and reschedule test after appropriate repairs have been completed.

(C) CASING PRESSURE TEST

PROCEDURE: (1) With the wellhead and bottom of casing sealed, fill casing with liquid and allow several hours for temperatures to stabilize (2) Pressure casing to at least 200 psi (3) observe and record pressure for 30 minutes.

TEST WITNESSED BY: _____ (COMPANY REPRESENTATIVE) _____ (EPA FIELD INSPECTOR)

DATE: _____

DATA RECORDED BY: _____

INITIAL PRESSURE: _____ psi PRESSURE AFTER 30 MINUTES _____ psi

RESULTS: (PASS/FAIL) - If fail, shut down and reschedule test after appropriate repairs have been completed.

(D) MONTHLY CASING-TUBING MONITORING

PROCEDURE: (1) Maintain a positive pressure of 5 to 10 psi and monitor annulus pressure monthly.

Annual Report Data:

YEAR	INJECTION PRESSURE RANGE	ANNULUS PRESSURE RANGE	REMEDIAL ACTIONS TAKEN	REVIEWED BY	DATE

(E) MONITORING INJECTION PRESSURE AND FLOW RATE RELATIONSHIP

PROCEDURE: (1) Perform initial pressure test (B), (2) Determine the initial well injectivity, (3) monitor the injection pressure and flow rate monthly.

DATE	FLOW RATE (BPD)	INJECTION PRESSURE	INVENTORY (BPD/psi)	REVIEWED BY	DATE

(F) RADIOACTIVE TRACER SURVEY

Data and interpretation show: Leaks in casing _____ tubing _____ packer _____
No leaks in casing _____ tubing _____ packer _____

RESULTS: (PASS/FAIL) - If fail, shut down and reschedule test after appropriate repairs are made.

III. REMARKS Left side of lease road head SE.
sign states 1-A South Boston

IV. From the knowledge obtained from the above tests, it is my opinion that this well has mechanical integrity: (YES/NO)

Don R. Ricci (COMPANY REPRESENTATIVE) Charm E. Brown (EPA FIELD INSPECTOR) 10/02/85 (DATE)